

DOCUMENT RESUME

ED 315 584

CE 054 055

AUTHOR Gray, Kenneth; And Others
TITLE Comparative Analysis of High School Graduates in Central Pennsylvania from Vocational, Academic and General Curricula for the Years 1984-88. Final Report.
INSTITUTION Pennsylvania State Univ., University Park.
SPONS AGENCY Pennsylvania State Dept. of Education, Harrisburg. Bureau of Vocational and Adult Education.
PUB DATE Jun 89
NOTE 71p.
PUB TYPE Reports - Research/Technical (143)
EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Academic Aspiration; *Academic Education; *Employment Level; *High School Graduates; High Schools; *Outcomes of Education; Postsecondary Education; Regional Schools; *Secondary School Curriculum; Unemployment; *Vocational Education; Vocational Followup; Vocational Schools
IDENTIFIERS *Pennsylvania (Central)

ABSTRACT

A study compared the high school, postsecondary, and work experience records of graduates from four different high school programs--academic, general, area vocational technical school (AVTS) and home school vocational programs (HSVOC)--for the years 1984-88. The research was conducted during the 1988-89 school year in the attendance area of the Altoona, Pennsylvania, AVTS. The sample for the study (3,125) was stratified to include equal numbers of vocational and nonvocational programs. Review of high school transcripts and a mailed questionnaire revealed the following: (1) between 1984 and 1988, the percentage of students completing the academic program grew steadily at the expense of the general and vocational curriculum; (2) 43 percent of the graduates in 1988 completed a vocational education curriculum, HSVOC attendance increased as AVTS lost students; (3) enrollment data for the period indicates a dramatic shift in girls' preference for the academic curriculum; (4) about half were currently students, and 68 percent had attended some higher education, especially 4-year colleges; (5) less than half the sample was in the labor market, with only 31 percent working full time and 7 percent working half time; (6) the unemployment rate for those in the labor force was 6.7 percent, with vocational graduates least likely to be unemployed; and (7) respondents work mainly in very small firms. (Includes 49 data tables.) (KC)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

JUNE 1989

FINAL REPORT

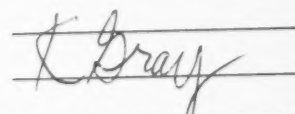
COMPARATIVE ANALYSIS OF HIGH SCHOOL GRADUATES IN
CENTRAL PENNSYLVANIA FROM VOCATIONAL, ACADEMIC AND
GENERAL CURRICULA FOR THE YEARS 1984-88

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- ☒ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY



TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

Kenneth Gray
Associate Professor
The Pennsylvania State University

Edith Isacke
Director
Altoona Area Vocational-Technical School

Wang, Dan-Shang
Research Assistant
The Pennsylvania State University

Funded by grant from the Pennsylvania State Department of Education
Bureau of Vocational and Adult Education

ED315584

5504500
CED 54055

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
FINDINGS	3
COMPARATIVE ANALYSIS OF HIGH SCHOOL GRADUATES FROM VOCATIONAL, ACADEMIC AND GENERAL CURRICULA FOR THE YEARS 1984-88.....	8
Statement of the Problem.....	8
Hypotheses Tested	10
Methodology.....	10
Transcript Data Collection.....	11
Questionnaire Data Collection.....	12
Data Analysis	13
Data Description	13
FINDINGS	13
I. Transcript Data	
High School Educational Experience	13
A. Distribution by Curriculum (1984-1988) (Tables 5.1-5.5)	13
B. Grade Point Averages (GPA) (Table 6).....	14
C. Total Credits Earned (Table 7)	14
D. Total Vocational Credit (Table 8.1-8.2).....	14
E. Handicapped Students (Table 9)	15
II Questionnaire Data.....	15
A. Respondents Characteristics (Table 1-3).....	15
B. Self Report of High School Curriculum (Table 11)	15
C. Mobility (Table 12.1-12.2)	16
D. Socio-Economic Status (Table 13.1-13.2).....	16
E. Current Status (Table 14.1-14.6)	16

Table of Contents
(continued)

III. Higher Education Experience.....	17
A. Attending Higher Education (Table 16.1-16.2).....	17
B. Type of Institution (Table 17).....	17
C. Location (Table 18).....	17
D. Higher Education Status (Table 19).....	17
IV. Work Experience.....	18
A. Earnings (Table 20).....	18
B. Unemployment Rates (Table 21).....	19
C. Job Satisfaction (Table 22).....	19
D. On-The-Job Training (Table 23.1-23.6).....	19
E. Firm Size (Table 24.1-24.4).....	20
F. Job-Seeking Techniques (Table 25.1-25.2).....	20
G. Self Employment (Table 26).....	20
Discussion.....	20
Clues to Declining Vocational Education Enrollment	21
Equal Opportunity and Vocational Education	23
Labor Force Experiences	
Importance of Gender and Socio-Economic Status	24
Who Gets Trained?	
The Availability of Employer-Provided Training.....	24
The Importance of Small Firms.....	25

TABLES

Table 1 Frequency Distribution of Transcript Data and Questionnaire Response Data	26
Table 2 Mean and Standard Deviation of GPA, Total Credits, and Total Vocational Credits earned in High School for Transcript Data and Questionnaire Response Data	27

TABLE OF CONTENTS
(continued)

Table 3 Mean and Standard Deviation of Total Credits and Total Vocational Credits earned in High School for Transcript and Questionnaire Response Data: 1984-1988	28
Table 4 Distribution (Percentage) of Vocational Graduates to Total Graduates: 1984-1988	29
Table 5.1 Gender Distribution: AVTS, HSVOC: 1984-1988: Transcript Data: Chi-Square Test	30
Table 5.2 Gender Distribution: Academic, General Curriculum: 1984-1988: Transcript Data: Chi-Square Test	31
Table 5.3 Curriculum Type by Graduation Year: Transcript Data: Chi-Square Test	32
Table 5.4 Curriculum Type by Graduation Year: Male Transcript Data: Chi-Square Test	33
Table 5.5 Curriculum Type by Graduation Year: Female Transcript Data: Chi-Square Test	34
Table 6 Grade Point Average by Curriculum Type: Transcript Data: Analysis of Variance	35
Table 7 Total Credits Earned by Curriculum Type: 1984-1988 Transcript Data: Analysis of Variance	36
Table 8.1 Total Vocational Credits Earned: 1984-1988: Transcript Data: Frequency Distribution	37
Table 8.2 Total Vocational Credits Earned by Curriculum Type: Transcript Data: Analysis of Variance	38
Table 9 Handicapped Status by Curriculum Type: Transcript Data: Chi-Square Test	39
Table 10 Marital Status by Curriculum Type: Questionnaire Response Data: Chi-Square Test	39
Table 11 Self Report of Curriculum Type by Counselor's Classification: Questionnaire Response Data: Chi-Square Test	40
Table 12.1 Mobility Status by Curriculum Type: Questionnaire Response Data: Chi-Square Test	41
Table 12.2 Mobility to Urban/Rural Area: Questionnaire Response Data: Chi-Square Test	41

TABLE OF CONTENTS
(continued)

Table 13.1 Parent's Education by Curriculum Type: Questionnaire Response Data: Analysis of Variance	42
Table 13.2 Father's Education by Curriculum Type: Questionnaire Response Data: Chi-Square Test	42
Table 14.1 Current Status by Curriculum Type: Questionnaire Response Data: Chi-Square	43
Table 14.2 Current Status by Curriculum Type: Class of 1984 Questionnaire Response Data: Chi-Square Test	44
Table 14.3 Current Status by Curriculum Type: Class of 1985 Questionnaire Response Data: Chi-Square Test	45
Table 14.4 Current Status by Curriculum Type: Class of 1986 Questionnaire Response Data: Chi-Square Test	46
Table 14.5 Current Status by Curriculum Type: Class of 1987 Questionnaire Response Data: Chi-Square Test	47
Table 14.6 Current Status by Curriculum Type: Class of 1988 Questionnaire Response Data: Chi-Square Test	48
Table 15 Military Status by Curriculum Type: Questionnaire Response Data: Chi-Square Test	49
Table 16.1 Higher Education Attendance by Curriculum Type Questionnaire Response Data: Chi-Square Test	49
Table 16.2 Higher Education Attendance by Curriculum Type by Graduation Year Questionnaire Response Data: Chi-Square Test	50
Table 17 Type of Post-Secondary Institution Attended by Curriculum Type: Questionnaire Response Data: Chi-Square Test	51
Table 18 Attending Higher Education Out-of-State by Curriculum Type: Questionnaire Response Data: Chi-Square Test	52
Table 19 Current Status of Higher Education Presence by Curriculum Type: Questionnaire Response Data: Chi-Square Test	52
Table 20.1 Weekly Earnings by Curriculum Type: First Job, Full-Time Employment: Analysis of Variance	53
Table 20.2 Weekly Earnings by Curriculum Type: Present Job, Full-Time Employment: Analysis of Variance	54

TABLE OF CONTENTS
(continued)

Table 20.3 Regression of the First Job's Weekly Earning for Full-Time Working Response Data	55
Table 20.4 Regression of the Current Job's Weekly Earning for Full-Time Working Response Data	56
Table 21 Unemployment Rates by Curriculum Type: Questionnaire Response Data: Frequency Distribution	57
Table 22.1 Job Satisfaction by Curriculum Type: First Job, Full-Time Employment Data: Chi-Square Test	58
Table 22.2 Job Satisfaction by Curriculum Type: Present Job, Full-Time Employment Data: Chi-Square Test	58
Table 23.1 Employer-Provided Training by Curriculum Type: First Job, Full-Time Employment Data: Chi-Square Test	59
Table 23.2 Employer-Provided Training by Curriculum Type: Present Job, Full-Time Employment Data: Chi-Square Test	59
Table 23.3 Satisfaction with Employer-Provided Training by Curriculum Type: First Job, Full-Time Employment Data: Chi-Square Test	60
Table 23.4 Satisfaction with Employer-Provided Training by Curriculum Type: Present Job, Full-Time Employment Data: Chi-Square Test	60
Table 24.1 Firm Size of Employer by Curriculum Type: First Job, Full-Time Employment Data: Chi-Square Test	61
Table 24.2 Firm Size of Employer by Curriculum Type: Present Job, Full-Time Employment Data: Chi-Square Test	61
Table 24.3 First Job's Firm Size by Employer-Provided Training Status: Full-Time Working Questionnaire Response Data: Chi-Square Test	62
Table 24.4 Present Job's Firm Size by Employer-Provided Training Status: Full Time Working Questionnaire Response Data: Chi-Square Test	63
Table 25.1 Job-Finding Techniques by Curriculum Type: First Job, Full-Time Employment Data: Chi-Square Test	64
Table 25.2 Job-Finding Techniques by Curriculum Type: Present Job, Full-Time Employment Data: Chi-Square Test	65

DRAFT: JUNE 1989

EXECUTIVE SUMMARY

COMPARATIVE ANALYSIS OF HIGH SCHOOL GRADUATES IN
CENTRAL PENNSYLVANIA FROM VOCATIONAL,
ACADEMIC AND GENERAL CURRICULA FOR THE YEARS 1984-88

by

Dr. Kenneth Gray
The Pennsylvania State University

The purpose of this study was to compare the high school, post-secondary education and work experience records of graduates from four different high school programs of study (academic, general, area vocational technical school [AVTS] and home school vocational programs [HSVOC]) for the years 1984-88. The research design and funding was provided by the Pennsylvania Department of Education, Bureau of Vocational and Adult Education. The research was conducted during the 1988-89 school year in the attendance area of the Altoona, Pennsylvania, AVTS, a mostly rural region, (population 136,000) in the central part of the state. Technical expertise, data analysis and reporting were provided under subcontract with The Pennsylvania State University.

The sample for this study was stratified to include equal numbers of graduates of vocational and non-vocational programs of study. As specified in the design, the sample (n=3125) included all graduates of approved vocational education programs in 1988 - 60% of the vocational students in 1987, 30% in 1986, 20% in 1985, and 10% in 1984 and an equal number of graduates from other curricula for the same years. Students were assigned to one of the four programs of study groups by high school guidance directors after reviewing individual transcripts. Data regarding

high school experience was obtained by transcript review. All individuals in the sample were sent a questionnaire to obtain data regarding their post secondary education and work experience record.

FINDINGS

1. Between 1984 and 1988, the percentage of students completing the academic program grew steadily at the expense of the general and vocational curriculum. During the period studied the number of high school graduates declined 10%, while graduates of approved vocational programs declined 23%. Even with this shift, however, 43% of all high school graduates in 1988 completed an approved vocational education program; and more students still complete a vocational education curriculum than either the academic program or general program. During the four-year period, there was a dramatic decline in the number of students completing the general program of study. Beginning in 1987, AVTS programs began to lose students to home school vocational programs as local high schools improved their business education programs.

2. Enrollment data for the period indicates a dramatic shift in preference of girls for the academic curriculum. In 1984, only 31% of all girls not enrolled in vocational education completed the academic program; by 1988 it had grown to 82%. This development could indicate a changing attitude in rural Pennsylvania about the value of further education for girls.

3. Regardless of what curriculum they had completed in high school, a majority of respondents wished to be viewed as graduates of the academic program. Fifty-two percent of the sample indicated they had completed the academic program; but counselors, after reviewing transcripts, reported only 46%. On the other hand, while counselors reported 44% of the sample had completed approved vocational programs, only 25% of the respondents so indicated.

4. Reflecting the new State graduation requirements, the total number of credits earned in grades 10-12 increased during the period studied. The average student exceeded considerably the State-mandated 21 credits: in 1988, for example, the average student earned 20 credits in grades 10-12 alone. Graduates of the academic and AVTS program earned significantly more credits than those in other curricula. The grade point averages of academic students and girls were significantly higher. Seventy-nine percent of all students earned a half credit or more of vocational education during their high school program. The average students took 4.7 credits of vocational education, while completers of AVTS curricula took 8.4. credits.

5. The largest percentage of handicapped students (43%) completed the AVTS program; the next largest group were enrolled in the general curriculum. Males were overrepresented in this group (61%), suggesting possible identification bias.

6. The present status of 51% of those responding to the questionnaire was that of students; over half of this group were working part-time. Totally, 68% of the questionnaire respondents had attended some higher education since graduation from high school; of this group, 92% attended school in state. The most common institution attended was the four-year college; of those attending some higher education, 83% of academic, 41% of general, 23% of HSVOC and 22% AVTS program completers entered four-year colleges. Graduates of the general curriculum were the most likely to have dropped out.

7. Graduates of the AVTS curricula showed the greatest diversity in pursuits after graduation. In 1988, the percentage of graduates pursuing higher education was second only to the academic program. AVTS graduates showed the most diversity in the type of higher education institution attended, with approximately equal percentages attending community colleges, technical institutes and four-year colleges. AVTS graduates were the most likely to be in the military and the least likely to be unemployed.

8. Less than half the sample was in the labor market. Reflecting the stratification of the study sample, which was weighted in favor of the classes of 1988 and 1987, only 31% of the respondents were working full time and 7% working part time. Of the graduates of the class of 1988, only one in five were working full time. Graduates of vocational curricula were more likely to be in the labor market.

9. The unemployment rate of those in the labor force was 6%. Graduates of vocational programs were the least likely to be unemployed, graduates of the general curriculum the most likely.

10. There were no statistically significant wage rate advantages found for any curriculum type. Statistically, significant weekly earning differences for present employment were found between graduates of different curricula, with academic and general students earning the most. Higher wages were found to be related to being male, being male and married, and from a home of high socio-economic status (SES). Importantly, having completed some higher education was related to higher weekly earnings for current employment and lessened the importance of SES.

11. The majority of those working were satisfied with their jobs. Graduates of the academic programs were the least satisfied of the four curriculum groups.

12. Ninety-five percent of all respondents working full time reported they had received some "on-the-job training." This training was mostly informal; only 30% of those working full time had received any formal (structured) on-the-job training; graduates of AVTS programs were even less likely to receive formal training. The majority of respondents were satisfied with the training they were provided.

13. Respondents work mainly in very small firms. Forty-three percent of the full-time workers

found their first job in firms of less than 20 employees; 74% in firms of less than 100. Sixty-six of all those presently working, work in firms of less than 100. There was no relationship between firm size and curriculum.

14. Firm size was found to be related to training. Those in large firms were the most likely to receive formal training.

15. Mobility of the respondents was small. Some differences in mobility were noted between graduates of different curricula. Graduates of the general curriculum were the most mobile, with only 55% still living at home, compared to 85% of the academic program graduates. Graduates of the AVTS and general curriculum were the most apt to move out of state (9%). Those who moved within the state, moved mostly to other rural communities; half of those who moved out of state moved to urban areas.

16. Family and friends were the most common sources of employment referrals. Calling on employers directly was the second, most common technique. There were some significant differences by curriculum types. Graduates of AVTS programs reported significant help from Cooperative Education programs. Teachers and guidance counselors were reported to have played an insignificant role.

COMPARATIVE ANALYSIS OF HIGH SCHOOL GRADUATES FROM VOCATIONAL, ACADEMIC AND GENERAL CURRICULA FOR THE YEARS 1984-88

The following research was conducted in response to a Request for Proposals (RFP) by the Pennsylvania Department of Education, Bureau of Vocational and Adult Education. The grantee was the Altoona Area Vocational-Technical School. Technical expertise and data analysis were provided by The Pennsylvania State University. The research was conducted during the 1988-89 school year.

The research design was stipulated in the RFP and called for collecting data for high school graduates from the years 1984-1988. The sampling specifications called for equal numbers of students who completed approved vocational programs and non-vocational students in the academic or general curriculum for each year of the study. The purpose of the research was to compare the high school, post-secondary education and work experiences of graduates of approved vocational programs with those of the academic and general curricula.

Statement of the Problem:

How best to prepare all youth for the transition from school to work is a classic policy issue in American education; it is also the root policy issue addressed by this research. Recent educational reform has questioned the assumption that occupational-specific vocational education best prepares the non-college bound student for entering the workforce. Reformers promote instead a policy of emphasizing a core academic program for all students, insured through more specific credit requirements for high school graduation. While these two policies, vocational education and core curriculum, in concept are not mutually exclusive, implementing them quickly reveals that there are difficulties. Time constraints of the standard high school day allegedly make it difficult for students to take enough courses to meet both specific graduation requirements and complete a comprehensive vocational education program.

The State of Pennsylvania is a classic example of the effect of the conflict between the two policies of core curriculum and vocational education. While investing heavily in vocational education, the State also has increased graduation requirements, making it one of the most prescriptive in the country. Although the cause and effect is unproven, vocational enrollments have dropped precipitously since the advent of the increased graduation requirements. During the period covered by this study (1984-88), vocational enrollment in the states drop 32% while overall high school enrollment declined only 6.6%.

There is reason to believe, however, that declining vocational education enrollments are not solely caused by increased graduation requirements. Confusing the issue, the largest percentage decline in enrollment came not in area vocational-technical schools (13%), where scheduling to meet both graduation and approved vocational program requirements is the most difficult, but in programs traditionally offered in comprehensive high schools, namely agriculture education (-27%), business education (-36%) and home economics (-27%). Importantly, two of these programs, were mostly taken by girls.

It would seem that multiple forces are at work to reduce participation in vocational education in Pennsylvania. The question of what these forces are and how youth are effected is an important policy issue in the State. Declining vocational education enrollments is of concern if graduates who did not complete a vocational education program but pursued full-time employment upon graduation are unprepared to do so. Regardless, declining vocational education enrollments will certainly aggravate the growing shortage of blue-collar technical workers in Pennsylvania. The purpose of this research was to provide insight into these policy issues by investigating the high school and post-high school experience of a group of high school graduates for the years 1984-1988 who completed different programs of study. The unique objective of this study was to contrast the experience of graduates according to their major program of study in high school: academic, general, area vocational technical school (AVTS), and home school vocational program (HSVOC), as identified by guidance directors of the participating high schools. The research addressed the following research questions.

Hypotheses Tested:

The study tested the following null hypothesis.

1. Secondary experience: Study groups (academic, general, AVTS, HSVOC) will show no significant difference on the high school experience variables of grade point average (GPA), total credits and total vocational credits.
2. Post-secondary educational experience: Study groups (academic, general, AVTS, HSVOC) will show no significant differences on the post-secondary education experience variables of rate of pursuit of post-secondary education, type of post-secondary institution attended, location of said institutions, and status in their higher education program of study.
3. Labor force experience: Study groups (academic, general, AVTS, HSVOC) will show no significant differences on the labor market experience variable of labor force participation, weekly earnings, job satisfaction, mobility, employer-provided job training, and size of firm.

Methodology

The total population for the study was all high school graduates for the years 1984-88 from the school districts of Altoona, Bellwood-Antis, Spring Cove, Claysburg, Hollidaysburg and Williamsburg. These school districts comprise the service area for the Altoona Area Vocational-Technical School (AVTS), located in Central Pennsylvania. The region is mostly rural, with a total population of 136,000. Altoona is the largest town with a population of 55,000. During the period studied, the economic conditions in the region improved considerably. While the unemployment rate in 1987 was 8.8%, it was only 4.4% in 1989.

The sample was drawn according to the guidelines provided by the funding agent and called for sampling 100% of all graduates from approved vocational programs in 1988, 60% of the vocational students in 1987, 30% in 1986, 20% in 1985, and 10% in 1984, and an equal number

of graduates from non-vocational programs for the same years. An approved vocational program is typically a course sequence that equals 720 hours (6 credits) during the final two years of high school, or 1080 hours (9 credits) in the final three years of high school. Approved vocational programs are offered both at Altoona AVTS and at the region's high schools: (HSVOC)=business education, vocational agriculture.

Sampling Procedure: Lists of graduates for the years 1984-88 were obtained from the participating high schools. In order to draw the sample, it was first necessary to identify those who had completed approved vocational programs, thus dividing the population into two groups. Names of completers of approved vocational courses taught in the home schools (HSVOC) were obtained from the VEMIS data base managed by the Bureau of Vocational and Adult Education. Lists of graduates of approved vocational programs taught in Altoona AVTS were obtained from the school. Having divided the population, all students were assigned a subject number. A computer program (SAS) generated a random list of numbers by year and curriculum. The population was stratified according to the relative size of the participating districts: Altoona 51%, Bellwood-Antis 8%, Spring Cove 11%, Claysburg-Kimmel 4%, Hollidaysburg 22%, Williamsburg 4%.

The total sample for the study was $n=3185$. While the sample was not stratified by gender, the proportions were almost exactly equal; male=49.5%, female=50.5%. Because graduates from Altoona Area High School made up 51% of the population, the sample was evenly divided between large towns and rural residences. The distribution of the sample by year of graduation was: 1984, 7%; 1985, 12%; 1986, 16%; 1987, 26%; 1988, 39%.

Transcript Data Collection: Prior to contracting with high school guidance directors to obtain transcript data, meetings were held with superintendents from participating schools to solicit their support and involvement. Assurance of confidentiality was provided and approval was obtained from the Penn State Human Subject Board.

Data pertaining to the high school experience variables were obtained from the transcripts of the sample. The guidance directors from each of the participating high schools collected the

data. Data were collected for the following variables: last known address, GPA, high school curriculum of study (academic, general, AVTS and HSVOC), total credits, total vocational credits, handicapped status, school, gender, year of graduation.

Meetings with the counselors prior to the transcript data collection revealed several problems due to variations in grading policies among the different high schools. Six different grading systems were used. To accommodate this variation, counselors were asked to convert a student's GPA to a common 1-12 ordinal scale (see appendix). Another problem was caused by a variation in the grade levels assigned to high schools in different towns. Some high schools included grades 9-12, others 10-12, and one had changed during the period of the study. In order to collect comparable data from high school transcripts, data were collected only for grades 10-12.

Questionnaire Data Collection: The remainder of the data for the study were collected through a mailed questionnaire. This instrument was revised a number of times, reviewed by the sponsor, and tested in adult vocational classes at Altoona AVTS. The total mailing equaled 3125. The difference from the original sample was due to a variety of factors, including students who did not graduate, students in a foreign exchange programs, etc.

The response rate from the first mailing of the instrument was 34% of the sample with deliverable mailing addresses; 8% of the questionnaires were returned without forwarding addresses. Interestingly, these were mostly in the small city of Altoona. Response rates fell rapidly the earlier the year of graduation, and while the response rate for the class of 1988 was 36%, it fell to 29% for the class of 1984 (See Table 1). An analysis was conducted to insure that non-response was not systematic. It was determined that male graduates from the classes of 1984-85 were under-represented in the sample. Using a computer-generated random list, a group of 252 male non-respondents were selected for telephone follow up. Subsequently, during the data analysis phase, it was discovered that a very small percentage of the sample was working full time, making statistical analysis difficult. It was decided, therefore, to conduct a second mailing to all non-respondents in May.

The sample drawn for the study was designed to be artificially stratified to include equal numbers of graduates of approved vocational and non-vocational curricula. After counselors reviewed transcripts, 52% of the sample was found to have completed the academic and general curricula, the remaining 48% completed approved vocational programs, thus confirming the sampling procedure which sought a 50/50 split. Within the two groups, academic and AVTS graduates were the largest: Academic=1112, General=502, AVTS=1040, HSVOC=471

Data Analysis: A two-file data base was created: transcript data (n=3125) and survey data (n=962). Frequencies and means were calculated for descriptive data. Depending on the nature of the data, the null hypotheses were tested for significant differences using chi-square, ANNOVA and multiple regression.

Data Description: Tables 1-3 provide a description of the data and a comparison of the original sample and the questionnaire respondents. Academic students and females were the most likely to respond. As a result, the GPA and total credits for the respondents were slightly higher than the original sample.

FINDINGS

I. Transcript Data: High School Educational Experience

Transcript data was collected for 3125 individuals by guidance staff. Males and females were evenly divided in the sample. Four percent of the samples were special education students.

A. Distribution by Curriculum (1984-1988) (Tables 5.1-5.5): During the period studied, graduates of approved vocational programs declined 23% while high school graduates in the region declined 10%. In 1984, graduates of approved vocational and non-vocational curricula were about

equal; by 1988, only 40% of the graduates in the Altoona AVTS service area completed an approved vocational education program.

The distribution of graduates within the two curricula groups (vocational and non-vocational) changed significantly between 1984 and 1988. In 1984, only 41% of the non-vocational sample were academic students; by 1988 it had risen to 79%. This movement to the academic curriculum was more dramatic for girls. Beginning in 1986, AVTS began losing enrollment to home school vocational programs (HSVOC=business education and vocational agriculture). This loss was slightly higher for girls than boys.

B. Grade Point Average (GPA) (Table 6): The mean GPA for the sample was a C+. Girls had significantly higher GPA's than boys: B-, C+. Statistically significant differences in GPA's were found for graduates of different curricula. The major differences were between academic (with a mean GPA of 7.9 [B]) and all other graduates, 9 with a GPA of 5.4 [C]). HSVOC and AVTS did have better GPA's than general students but the differences were very small.

C. Total Credits Earned (Table 7): The average number of credits earned by individuals in the sample were 19.6 for grades 10-12. There was no gender difference for this variable. Reflecting increased State and in some cases local graduation requirements, total high school credits earned by the sample increased from 1984-88 (see Table 3). By 1988 the average number of credits earned in grades 10-12 alone was 20; it is obvious that most students are now earning significantly more credits than the State-mandated 21 credits in grades 9-12. There was a statistically significant difference in credits earned among graduates (of different curricula?), with academic and AVTS graduates earning the most. This difference was consistent for all graduating classes, 1984-88.

D. Total Vocational Credit (Table 8.1-8.2): One or more vocational education courses were taken by 79 percent of the total sample. The range was large and significant. On the average, academic students took only .77 credits, while AVTS students took 8.4. The mean number of vocational credits taken by the sample of credits was 4.7 (see Table 3). This value was constant

over the five years of the study, despite a 23% decline in vocational graduates. There were no gender differences found.

E. Handicapped Students (Table 9): Four percent of the sample were students (n=121) who had been identified as handicapped. The largest percentage of these students completed the AVTS program (43%), and the second largest the general curriculum (39%). While males represented half the sample, they made up 61% of the handicapped. Handicapped earned slightly less total credits, slightly more vocational credits, and had a slightly lower average GPA than the sample in general.

II Questionnaire Data:

A. Respondents' Characteristics (Table 1-3): Reflecting the sampling procedure, the sample was dominated by the class of 1988 with 42%, and the class of 1987 with 27%. The average age of those responding was 19.46. Only 9% of the group were married; those married were most likely to be female graduates of vocational curriculum (see Table 10). Reflecting the racial makeup of the population in the AVTS service area, less than 1% were minorities. Individuals identified as handicapped made up 2.4% of the respondents.

B. Self-Report of High School Curriculum (Table 11): The questionnaire asked individuals in the sample to identify their program of study while in high school: academic, general, AVTS or HSVOC. This response was compared to a program of study designated by guidance counselors after they reviewed each individual transcript. The result illustrated the importance of having guidance counselors indicate the program of study. Other than academic students, 98% of whom were correct, the accuracy of the responses was rather dismal. Only 31% of completers of HSVOC programs viewed themselves as vocational students, usually thinking instead that they were general students. The results for those identified by counselors as completers of the general program were not much better, with only 45% being accurate. Forty-three percent of this group reported they had completed the academic curriculum.

Those who inaccurately reported their program of study usually thought they had completed the academic program. While counselors indicated that 44% of the sample had completed approved vocational programs, only 25% of the respondents so indicated. Fifty-two percent of the sample reported they completed the academic program while counselors reported only 46%.

C. Mobility (Table 12.1-12.2): In order to get an accurate analysis of mobility of graduates, those in the military were deleted. Graduates of the general curriculum were the most mobile - only 55% were still living at home. Graduates from the academic program were least mobile, with 85% still living at home. Even those who had moved, had not gone very far. Fifty-eight percent of the general curriculum graduates who moved, for example, moved within the county. Interestingly, graduates from the AVTS and general curriculum were the most apt to have moved out of state, but the percentage was small (9%). Those who moved within the State usually moved to another rural community; one half of those who moved out of state moved to an urban area. Eighty-three percent of the sample indicated they lived in a rural area.

D. Socio-Economic Status (Table 13.1-13.2): To facilitate the possible use of regression analysis, a question was asked regarding a parent's educational level as an indicator of socio-economic (SES) level. Confirming other studies, the SES status of graduates of the academic curriculum were the highest, and AVTS the lowest. AVTS graduates were the most likely to have fathers who were not high school graduates (22%). Graduates of HSVOC had the second lowest SES.

E. Current Status (Table 14.1-14.6): The most common present status of respondents was that of student (51%); 24% were full-time students not working, and 27% were full-time students with part-time jobs. Only 31% of the sample were working full time and another 7% part time. Using standard labor economic terminology, 42% of the respondents were in the labor force (employed full time, part time, or unemployed), 6% were in the military, and 52% were out of the labor force (students, institutionalized, etc.). Results from the telephone follow up of non-respondents suggest that the real percentage of graduates in the military may be greater than 6%.

Twelve percent of the graduates of the AVTS curriculum were in the military, which was twice as high as any other program of study (Table 15).

III. Higher Education Experience

A. Attending Higher Education (Table 16.1-16.2): Excluding those in the military, a healthy 68% of the respondents reported having attended higher education since graduation. Academic students led the groups with 94% going on, followed by 51% of general students, 44% of HSVOC and 43% of AVTS graduates. Perhaps signaling a trend, the percentage of graduates of vocational programs going on to higher education continues to increase. In 1988, the AVTS program was second only to the academic program in those pursuing higher education (45%).

B. Type of Institution (Table 17): The institution of choice for academic students was the four-year college, with 83% of those going on to higher education attending this type of institution, as did 41% of general graduates, 23% of HSVOC and 22% of the AVTS. Many graduates of the AVTS program attended community colleges more than those in other curricula. Others were fairly evenly distributed between four-year colleges, community colleges and private business/technical colleges. Reflecting the dominance of business education in HSVOC, graduates of this program were most apt to go to private business colleges (37.5%).

C. Location (Table 18): Most graduates who went on to school did so in Pennsylvania (92%). There were no significant differences by curriculum type.

D. Higher Education Status (Table 19): Those in the sample were asked to record the status of their higher education program. Because the questionnaire respondents group was dominated by the class of 1988 (42%), and only the class of 1984, (the smallest in the sample [6%]), could have graduated from four year colleges, comparisons of status among curricula are difficult and possibly meaningless. Eighty-eight percent of the academic student graduates who went on to higher education reported they were still full-time students compared to 59% of AVTS and HSVOC. Conversely, 30% of HSVOC and 24% AVTS reported having completed their

higher education program of study compared to only 4% of the academic students. Fifteen percent of graduates of the general program reported they did not finish their chosen program of study compared to 10% of AVTS, 4% academic and 3% of HSVOC.

IV. Work Experience

Number Employed (Table 14): One of the most dramatic findings was how few graduates were working full time. Only 31% of all the questionnaire respondents were presently working full time and another 7% part time. These figures are somewhat distorted however by the predominance of graduates of the classes of 1988 and 1987 in the sample. The percent of respondents working full time ranges from only 20% for the class of 1988 to 67% for the class of 1984. Even three years after graduation, only 37% of the class of 1985 were working full time, with another 10% working part time.

Not surprising, those who were working were more likely to be graduates of the vocational curricula, with more than 60% of AVTS and HSVOC programs currently in the labor force. General students were not far behind at 53%. Only 12% of the academic graduates were in the labor force working full or part time.

The response of the class of 1988 (Table 14.6) provides insight into the common paths students are taking upon graduation from high school. As reported above, very few of the graduates were working full time (21%). Another 8% were working part time. Sixty-one percent of the sample were full-time students. It is important to note that more than half of all students from all curricula who were full-time students were also working part time. Confirming earlier findings for the class of 1988 which showed academic and AVTS programs sending the most on to higher education, graduates of the general curriculum were the most likely to be working full time (43%), followed by HSVOC (37%), AVTS (34%) and academic (5%).

A. Earnings (Table 20): A comparison of wage rates, weekly earnings and hours worked was conducted for those working full time from the four curricula groups. While wage rate

differences were found, they were not statistically significant. Statistically significant differences were found for "weekly earnings" from current employment. For the total sample, graduates of the academic curriculum had higher weekly earnings. Weekly earning advantages, however, varied significantly for different years of graduation. For the class of 1984, the group with the highest percentage of full-time workers, AVTS and academic students earned the most. In 1986 AVTS graduates alone earned the most, and in 1987 and 1988 graduates of the general program. Graduates of AVTS program did work significantly more hours per week.

Multiple regression analysis was performed to test for relationship between weekly earnings and a variety of variables (see Table 20.3-20.4). Being male and/or being from a family of high SES, positively related to higher weekly earnings. Importantly, having completed some higher education was also strongly related to earnings and reduced the importance of high SES. Finding a job in an urban area was also related to earning more. Having completed a HSVOC was found to be negatively related to earnings.

B. Unemployment Rates (Table 21): The mean unemployment rate for those in the labor force was 6.7%, which is quite close to the national unemployment rate for youth. Graduates of the general curriculum were the most apt to be unemployed (7.1%), followed by academic students (6.9%). The best unemployment rate was for graduates of HSVOC (5.1%), followed closely by AVTS (5.8%).

C. Job Satisfaction (Table 22): Graduates were asked to indicate their level of satisfaction with their first and present job. In general, respondents were satisfied with their jobs, particularly their present employment. Graduates of the academic curriculum were consistently less satisfied than other graduates.

D. On-The-Job Training (Table 23.1-23.6): Respondents were asked to indicate the type (formal or informal; from supervisor, co-worker, or none) of employer training they were provided. Ninety-five percent or more of those in the labor force had received some training for their first and present job. Overwhelmingly, informal training is the most common. Only 30% of those currently holding full-time jobs indicated having received formal training. Graduates of the

academic program were the most likely to get formal training for full-time employment and graduates of vocational education program the least likely. Only 22% of vocational graduates received formal training for their first job. Informal training was about evenly provided by supervisors and fellow employees. Again, academic graduates were the most likely to get informal training from supervisors rather than fellow employees. Questionnaire respondents were asked to indicate their level of satisfaction with training as provided. Seventy-five percent or more were satisfied with the formal or informal training they received.

E. Firm Size (Table 24.1-24.4): Respondents were asked to indicate the size of firms in which they were employed. Confirming earlier research by this author, most worked in very small firms. Forty-four percent reported finding their first job in firms with less than 20 other employees, 74% in firms of less than 100. Those who changed jobs show a slight tendency to move to larger firms. There were no significant differences in firm size of those employed by curriculum groups. Those who worked in large firms were more likely to receive formal training.

F. Job Seeking Techniques (Table 25.1-25.2): How did graduates find work? Family and friends were the most important source. Graduates of AVTS programs did indicate significant assistance from cooperative education programs. Graduates of academic programs indicated assistance from college placement offices. In general, other than family and friends, calling employers directly was the second most important job-seeking technique. Very few respondents in any curriculum indicated getting help from teachers or guidance counselors.

G. Self-Employment (Table 26). Less than 2% of the respondents reported being self-employed. Differences between curricula types were not significant.

Discussion

The purpose of this study was to compare the high school, higher education and work experience records of graduates of different high school programs of study in the six high schools comprising the Altoona Area Vocational-Technical School (AVTS) region for the years 1984-88.

Because this time period also corresponded to years when Pennsylvania implemented increased graduation requirements, and when vocational education enrollments declined statewide, findings provided interesting insight into the nature of these developments in one region of Central Pennsylvania.

Clues to Declining Vocational Education Enrollment:

The distribution of graduates between approved vocational and non-vocational students was found to follow the statewide trend. While total graduates declined 10%, graduates of vocational programs declined 23%.

The most common hypothesis for declining graduates of approved vocational programs is the adverse effect of increased graduation requirements. It is argued that students cannot meet both the requirements of the graduation law and an approved vocational program, particularly when the vocational program is offered in an off-campus AVTS, or when students get into academic difficulty from failures.

Yet there are reasons to suspect there are forces other than increased graduation requirements that are working to decrease vocational enrollments. First, the most dramatic declines across the State have not been in the AVTS programs, but in approved vocational programs traditionally offered in comprehensive high schools. Between 1984 and 1988, vocational enrollments in agriculture declined 24%, business education 36%, vocational home economics 32% and consumer and homemaking 26%, while trade and industrial, programs typically offered in AVTS, only 13%. Second, during the same period the State of Pennsylvania has gone from almost last in the percentage of students attending higher education to almost the national average. The obvious conclusion is that students are not being driven out of vocational programs but are opting for the academic program. The results of this study suggests this is the case and this trend is particularly true for girls.

Were increased graduation requirements alone responsible for declining numbers of vocational program completers, one would expect to find an increase in graduates of general

programs, because students who found they could not meet graduation requirements would transfer out of vocational into the general program. This study found no such movement. Enrollment declines in the general program were greater than vocational programs. Where did the students go? They went to the academic program.

Analysis of transcript data from the Altoona AVTS service region showed a dramatic increase in graduates of the academic program. Of particular interest was the startling increase in girls who now completed the academic curriculum. In 1984, girls were seriously underrepresented in the college program and overrepresented in the general. By 1988, this distribution had reversed itself. It can be speculated that in 1984 these girls were mostly completing business education or home economic programs, but are now in the college program; thus the sharp decline in vocational programs in comprehensive high schools.

This research provides evidence for the hypothesis that declining vocational education enrollment is a positive sign of the growth of equal opportunity in Pennsylvania to attend higher education, particularly for girls. The increasing preference of students for higher education is illustrated by the finding that only 22% of all graduates of the class of 1988 were working full time; student was the most common status. Also indicative, when asked what program they completed in high school, was that the majority indicated the academic program, even though less than half completed this program of study.

Declining vocational education enrollments may be signaling increased equal opportunity to attend higher education in Pennsylvania and a change in attitudes about the suitability of higher education for girls. If this is the case, continued long run declines in vocational education enrollments can be predicted. It is noted, for example, that in the State of Connecticut, only 8% of all high school students are enrolled in AVTS schools: in the Altoona region 30% are enrolled. If Connecticut is the norm, significant decline in vocational education enrollments are still ahead. Driving this decline is the perception by educators, students and their parents/guardians that vocational education provides little opportunity beyond full-time employment.

Equal Opportunity and Vocational Education:

It has been argued above, that results from this study and other statewide demographic development suggest declining vocational education enrollments are being heavily influenced by an increase in those pursuing the academic program, particularly women. The coincidence of this development with increased graduation requirements may or may not be coincidental. Increased interest in further education may have been a result of the education reform movement in Pennsylvania; it also may have been the result of the end of an era when the State had the highest numbers and wages for unskilled workers in the world - it was probably a combination of both. For whatever reason, the result is that a growing number of students and their parents/guardians are making the decision that the academic curriculum is the best bet for the American dream and they are being encouraged to do so by most educators. Said another way, vocational education is a dead-end program leading only to full-time employment and thus only for those who want no other alternative upon graduation. The results of this research suggest this perception is not true, especially AVTS curricula.

If the experience of its graduates is any indication, of the four types of curricula types, the AVTS seems to offer the most options. In 1988, it was second only to the academic curriculum in sending students on to higher education; importantly it was the leader in sending students to community colleges and technical programs. Graduates of vocational programs who were in the labor force were most likely to be working full time and the least likely to be unemployed. Graduates of the AVTS system were most likely to be in the military. These results are significant for another reason: over 40% of all handicapped students in the study completed an AVTS program. The AVTS program seems anything but a dead end and serves the largest numbers of special needs students.

Labor Force Experiences: Importance of Gender and Socio-Economic Status

A purpose of this research was to test for labor market advantages of graduating from one curriculum over another. Significant differences of this type were not found for wage rates; some statistically significant differences were found for weekly earnings. One finding was particularly disturbing. Factors that were statistically related to earnings, were gender and socio-economic status (SES). What this means is that regardless of program of study in high school, being male and/or being from a family of high socio-economic status is a more accurate prediction of earnings. Being married and male was, but being female and married was not a predictor of higher earnings.

The one hope in this sad state of affairs is the leveling effects of higher education of all types. When having completed a program of higher education is entered in the analysis, the importance of SES decreased. Higher education has a leveling effect - it makes family background less important. Gender still remains important, however. Clearly there is a reason to suspect wage or occupations gender discrimination.

Who Gets Trained?: The Availability of Employer-Provided Training

A common theme discussed in education reform debates is the belief that basic skills, common-core curriculum serves best all students because occupational-specific training will be provided on the job by employers. Confirming other national studies, this research suggests this assumption is false.

In discussing this issue, it is important to define formal and informal training. Informal training, as the term applies, is best described as help as needed to do "today's work" provided by either supervisors or fellow workers. Informal training is the most narrow in scope, and the least predictable; and typically, it does not provide the opportunity to acquire higher level skills to climb future career ladders. Importantly, informal training provides the least amount of assistance to the

trainee; it is definitely a "survival of the fittest" environment. Formal training is closer to what is provided in a vocational education program. It is structured, predictable, and takes place away from the demands of daily work. The pace of the learner is monitored. Unlike informal training, formal training can provide credentials that enhance career advancement.

This study showed that like the labor force in general, very few high school graduates in the study reported having received formal training. For most, success at work depended on being able to reach entry-level performance expectations in informal, "you're on your own", settings. This reality is particularly important for slow learners who may have difficulty in learning job skills in this "here I will show you; now you are on your own" environment. It will be remembered, for example, that AVTS graduates were the least likely to receive formal training, and AVTS programs enrolled the highest numbers of handicapped. Obviously, the more basic vocational skills these individuals can bring to the job, the better their chances of meeting the informal training expectations of employers. The predominance of informal training also means that for most, the opportunity to learn job skills that could lead to career advancement do not exist on the job.

The Importance of Small Firms:

This research clearly demonstrated the symbiotic relationship of small businesses and young workers. More than three quarters of the respondents who were working full time reported being employed in firms of less than 100 employees; 44% in firms of less than 20. A strong argument can be made that what is good for small business is good for young workers.

What is good for small business? This research suggests one relevant area. The study found a direct relationship between firm size and formal training: the smaller the firms, the less likely formal training will occur. Small businesses cannot afford to absorb the cost of training without productivity. They need entry-level workers who come with basic skills, including basic vocational skills, that allows them to master specific work tasks in informal training settings. This is particularly true of small firms in blue-collar technical fields, the kind of occupations typically taught in trade and industrial, and technical education at the secondary and post-secondary levels.

TABLES

26

Table 1
Frequency Distribution of Transcript Data and Questionnaire Response Data

Variable	Transcript Data		Questionnaire Data	
	FREQUENCY	PERCENT	FREQUENCY	PERCENT
High School Curriculum				
Academic	1112	35.6	437	45.5
General	502	16.1	97	10.1
AVTS	1040	33.3	270	28.1
HS VOC	471	15.1	157	16.3
Sample N	3125	100.0	961	100.0
Handicapped or not				
Non-handicapped	3004	96.1	938	97.6
Handicapped	121	3.9	23	2.4
Sample N	3125	100.0	961	100.0
Gender				
Male	1549	49.6	391	40.6
Female	1576	50.4	571	59.4
Sample N	3125	100.0	962	100.0
Year				
1984	226	7.2	61	6.3 27%
1985	372	11.9	104	10.8 28
1986	512	16.4	141	14.7 28
1987	809	25.9	258	26.8 51
1988	1206	38.6	398	41.4
Sample N	3125	100.0	962	100.0 33%

Table 2
Mean and Standard Deviation of GPA, Total Credits, and Total Vocational Credits earned in High School for Transcript Data and Questionnaire Response Data: Grades 10-12

Variable	Transcript Data		Questionnaire Data	
	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
GPA	6.425	2.529	7.296	2.432
TORED	19.583	2.217	19.984	2.145
TVOC	4.726	3.875	4.373	3.988
Sample N	3125		961	

Note: TORED and TVOC represent the total credits and total vocational credits the respondent earned in high school, respectively.

Table 3
Mean and Standard Deviation of Total Credits and Total Vocational Credits earned in High School
for Transcript and Questionnaire Response Data: 1984-1988: Grades 10-12.

Variable	Transcript Data		Questionnaire Data	
	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
1984				
TORED	18.514	1.816	18.589	1.893
TVOC	4.972	3.550	5.033	3.666
Sample n	226		61	
1985				
TORED	18.985	1.844	19.417	1.769
TVOC	4.665	3.980	4.263	4.242
Sample n	372		104	
1986				
TORED	18.952	2.219	19.299	1.822
TVOC	4.896	3.767	4.889	3.932
Sample n	512		141	
1987				
TORED	19.654	1.977	19.947	2.074
TVOC	4.648	3.878	4.315	3.868
Sample n	809		257	
1988				
TORED	20.186	2.347	20.612	2.217
TVOC	4.678	3.945	4.156	4.056
Sample n	1206		398	

Table 4
Distribution (Percentage) of Vocational Graduates to Total Graduates: 1984-1988

Year	Voc Graduates	Total Graduates	% of Total Graduates
1984	783	1578	50%
1985	727	1415	51%
1986	673	1393	49%
1987	611	1379	44%
1988	601	1414	43%
Change between 1984 and 1988	-23%	-10%	

7179

Table 5.1
 Gender Distribution: Academic-General
 1984-1988: Transcript Data: Chi-Square Test

	FREQUENCY PERCENT	Male	Female	Total	Chi-Square
1984	Academic	28	18	46	4.32**
		50.91	31.58	41.07	
	General	27	39	66	
		49.09	68.42	58.93	
	TOTAL	55	57	112	
		49.11	50.89	100.00	
1985	Academic	53	62	115	0.38
		53.54	59.62	56.65	
	General	46	42	88	
		46.46	40.38	43.35	
	TOTAL	99	104	203	
		48.77	51.23	100.00	
1986	Academic	72	91	163	3.01
		52.55	62.76	57.80	
	General	65	54	119	
		47.45	37.24	42.20	
	TOTAL	137	145	282	
		48.58	51.42	100.00	
1987	Academic	143	173	316	0.33
		74.48	76.89	75.78	
	General	49	52	101	
		25.52	23.11	24.22	
	TOTAL	192	225	417	
		46.04	53.96	100.00	
1988	Academic	222	250	472	3.42
		75.51	81.70	78.67	
	General	72	56	128	
		24.49	18.30	21.33	
	TOTAL	294	306	600	
		49.00	51.00	100.00	

**=P<.05

Table 5.2
 Gender Distribution: AVTS - HS VOC
 1984-1988: Transcript Data: Chi-Square Test

	FREQUENCY PERCENT	Male	Female	Total	Chi-Square
1984	AVTS	49	32	81	8.56***
		83.05	58.18	71.05	
	HS VOC	10	23	33	
		16.95	41.82	28.95	
	TOTAL	59	55	114	
		51.75	48.25	100.00	
1985	AVTS	~~51.75~~ 68	~~48.25~~ 61	100.00	1.97
		~~80.95~~	~~71.76~~	~~76.33~~ 129	
	HS VOC	16	24	40	
		19.05	28.24	23.67	
	TOTAL	84	85	169	
		49.70	50.30	100.00	
1986	AVTS	106	79	185	9.95***
		88.33	71.82	80.43	
	HS VOC	14	31	45	
		11.67	28.18	19.57	
	TOTAL	120	110	230	
		52.17	47.83	100.00	
1987	AVTS	169	103	272	26.18
		80.48	56.59	69.39	
	HS VOC	41	79	120	
		19.52	43.41	30.61	
	TOTAL	210	182	392	
		53.57	46.43	100.00	
1988	AVTS	236	137	373	75.32***
		78.93	44.63	61.55	
	HS VOC	63	170	233	
		21.07	55.37	38.45	
	TOTAL	299	307	606	
		49.34	50.66	100.00	

***=P<.01

Table 5.3
Curriculum Type by Graduation Year:
Transcript Data: Chi-Square Test

FREQUENCY PERCENT	1984	1985	1986	1987	1988	TOTAL
Academic	46 20.35	115 30.91	163 31.84	316 39.06	472 39.14	1112 35.58
General	66 29.20	88 23.66	119 23.24	101 12.48	128 10.61	502 16.06
AVTS	81 35.84	129 34.68	185 36.13	272 33.62	373 30.93	1040 33.28
HS VOC	33 14.60	40 10.75	45 8.79	120 14.83	233 19.32	471 15.07
TOTAL	226 7.23	372 11.90	512 16.38	809 25.89	1206 38.59	3125 100.00
Chi-Square 145.34***						

***=P<.01

Note: Sample was stratified to include equal numbers of vocational and non-vocational students.

Table 5.4
Curriculum Type by Graduation Year:
Male Transcript Data: Chi-Square Test

FREQUENCY PERCENT	1984	1985	1986	1987	1988	TOTAL
Academic	28 24.56	53 28.96	72 28.02	143 35.57	222 37.44	518 33.44
General	27 23.68	46 25.14	65 25.29	49 12.19	72 12.14	259 16.72
AVTS	49 42.98	68 37.16	106 41.25	169 42.04	236 39.80	628 40.54
HS VOC	10 8.77	16 8.74	14 5.45	41 10.20	63 10.62	144 9.30
TOTAL	114 7.36	183 11.81	257 16.59	402 25.95	593 38.28	1549 100.00
Chi-Square 50.83***						

***=P<.01

Note: Sample was stratified to include equal numbers of vocational and non-vocational students.

Table 5.5
Curriculum Type by Graduation Year:
Female Transcript Data: Chi-Square Test

FREQUENCY PERCENT	1984	1985	1986	1987	1988	TOTAL
Academic	18 16.07	62 32.80	91 35.69	173 42.51	250 40.78	594 37.69
General	39 34.82	42 22.22	54 21.18	52 12.78	56 9.14	243 15.42
AVTS	32 28.57	61 32.28	79 30.98	103 25.31	137 22.35	412 26.14
HS VOC	23 20.54	24 12.70	31 12.16	79 19.41	170 27.73	327 20.75
TOTAL	112 7.11	189 11.99	255 16.18	407 25.82	613 38.90	1576 100.00
Chi-Square 113.94***						

***=P<.01

Note: Sample was stratified to include equal numbers of vocational and non-vocational students

Table 6
Grade Point Average by Curriculum Type:
Transcript Data: Analysis of Variance

SOURCE	DF	SUM OF SQ	MEAN SQ	F VALUE
MODEL	3	4121.5199	1373.840	270.35***
ERROR	3121	15860.1341	5.082	
CORRECTED TOTAL	3124	19981.6530		

High School Curriculum	N	MEANS
Academic	1112	7.939 — B
General	502	5.116 C
AVTS	1040	5.678 C
HS VOC	471	5.896 C+

***=P<.01

1 1 1 1 1
1-3 4-6 7-9 10-12

Table 7
Total Credits Earned by Curriculum Type:
1984-1988 Transcript Data: Analysis of Variance

SOURCE	DF	SUM OF SQ	MEAN SQ	F VALUE
MODEL	3	601.6995	200.566	42.41***
ERROR	3121	14758.7734	4.728	
CORRECTED TOTAL	3124	15360.4739		

High School Curriculum	N	MEANS
Academic	1112	19.95
General	502	18.75
AVTS	1040	19.76
HS VOC	471	19.21

High School Curriculum	Graduation Year				
	1984	1985	1986	1987	1988
Academic	18.57	19.07	19.21	19.93	20.55
General	18.24	18.52	18.76	18.53	19.31
AVTS	19.07	19.26	19.06	20.12	20.17
HS VOC	17.59	18.82	18.06	18.80	19.92
F VALUE	6.31***	3.11**	3.70**	27.88***	11.06***

***=P<.01; **P<.05

Table 8.1
 Total Vocational Credits Earned: 1984-1988:
 Transcript Data: Frequency Distribution

Sample	TVOC	FREQUENCY	PERCENT
Total	<0.5 Credit	667	21.3
	>=0.5 Credit	2458	78.7
Male	<0.5 Credit	347	22.4
	>=0.5 Credit	1202	77.6
Female	<0.5 Credit	320	20.3
	>=0.5 Credit	1256	79.7
1984	<0.5 Credit	32	14.2
	>=0.5 Credit	194	85.8
1985	<0.5 Credit	93	25.0
	>=0.5 Credit	279	75.0
1986	<0.5 Credit	97	18.9
	>=0.5 Credit	415	81.1
1987	<0.5 Credit	187	23.1
	>=0.5 Credit	622	76.9
1988	<0.5 Credit	258	21.4
	>=0.5 Credit	948	78.6

Table 8.2
Total Vocational Credits Earned by Curriculum Type:
Transcript Data: Analysis of Variance

SOURCE	DF	SUM OF SQ	MEAN SQ	F VALUE
MODEL	3	36179.5196	12059.839	3504.11***
ERROR	3121	10741.3234	3.441	
CORRECTED TOTAL	3124	46920.8430		

High School Curriculum	N	MEANS
Academic	1112	0.77
General	502	3.27
AVTS	1040	8.43
HS VOC	471	7.42

High School Curriculum	Graduation Year				
	1984	1985	1986	1987	1988
Academic	0.70	0.43	0.92	0.86	0.75
General	3.19	3.19	4.33	2.89	2.71
AVTS	7.96	8.02	8.29	8.58	8.59
HS VOC	7.17	8.67	6.84	7.21	7.47
F VALUE	158.1***	401.5***	354.1***	1139.6***	1771.5***

***=p<.01

Table 9
Handicapped Status by Curriculum Type:
Transcript Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Non-handicapped	1104 99.28	455 90.64	988 95.00	457 97.03	3004 96.13
Handicapped	8 0.72	47 9.36	52 5.00	14 2.97	121 3.87
TOTAL	1112 35.58	502 16.06	1040 33.28	471 15.07	3125 100.00
Chi-Square	74.93***				

***=P<.01

Table 10
Marital Status by Curriculum Type:
Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Single	419 95.88	85 87.63	229 84.81	129 83.23	862 89.89
Married	14 3.20	9 9.28	36 13.33	24 15.48	83 8.65
Separated/ Divorced	4 0.92	3 3.09	5 1.85	2 1.29	14 1.46
TOTAL	437 45.57	97 10.11	270 28.15	155 16.16	959 100.00
Chi-Square	36.54***				

***=P<.01

Table 11
Self Report of Curriculum Type by Counselor's Classification:
Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	Counselors' Classification				
	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Academic	427 97.94	39 40.21	6 2.23	23 15.44	495 52.05
General	4 0.92	44 45.36	15 5.58	67 44.97	130 13.67
AVTS	0 0.00	3 3.09	170 63.20	4 2.68	177 18.61
HS VOC	0 0.00	4 4.12	4 1.49	46 30.87	54 5.68
Two-check	5 1.15	7 7.22	74 27.51	9 6.04	95 9.99
TOTAL	436 45.85	97 10.20	269 28.29	149 15.67	951 100.00
Chi-Square	1309.6***				

**=P<.01

Note: Two-check means that respondent checked more than one program of study in the questionnaire.

Table 12.1
Mobility Status by Curriculum Type:
Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Never Moved	343 84.48	50 55.56	165 69.62	103 70.07	661 75.11
Moved in the County	23 5.67	23 25.56	39 16.46	29 19.73	114 12.95
Moved within State	24 5.91	9 10.00	11 4.64	6 4.08	50 5.68
Moved out of PA	16 3.94	8 8.89	22 9.28	9 6.12	55 6.25
TOTAL	406 46.14	90 10.23	237 26.93	147 16.70	880 100.00
Chi-Square	57.98***				

***=P<.01

Table 12.2
Mobility to Urban/Rural Area:
Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	Within PA	Move out of PA	TOTAL
Rural	35 67.31	39 48.15	74 55.64
Urban	17 32.69	42 51.85	59 44.36
TOTAL	52 39.10	81 60.90	133 100.00
Chi-Square	4.71**		

**=P<.05

Table 13.1
 Parents' Education by Curriculum Type:
 Questionnaire Response Data: Analysis of Variance

SOURCE	DF	SUM OF SQ	MEAN SQ	F VALUE
MODEL	3	1420.335	473.445	41.11***
ERROR	925	10653.186	11.517	
CORRECTED TOTAL	928	12073.521		

High School Curriculum	N	MEANS
Academic	428	26.49
General	95	24.53
AVTS	258	23.83
HS VOC	148	24.11

***=P<.01

Note: Parents' education is measured by adding mother's and father's education together.

Table 13.2
 Father's Education by Curriculum Type:
 Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Less than 12 Years	36 8.24	15 15.46	59 21.85	22 14.01	132 13.74
Greater Than 12 Years	401 91.76	82 84.54	211 78.15	135 85.99	829 86.26
TOTAL	437 45.47	97 10.09	270 28.10	157 16.34	961 100.00
Chi-Square	26.41***				

***=P<.01

Table 14.1
Current Status by Curriculum Type:
Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Working Full Time	44 10.09	42 43.30	131 48.52	76 48.72	293 30.55
Working Part Time	10 2.29	10 10.31	30 11.11	18 11.54	68 7.09
Full-time Student	170 38.99	13 13.40	32 11.85	14 8.97	229 23.88
Full-time Student with Part-Time Job	189 43.35	16 16.49	31 11.48	27 17.31	263 27.42
In the Army	16 3.67	5 5.15	25 9.26	7 4.49	53 5.53
Homemaker	2 0.46	6 6.19	7 2.59	7 4.49	22 2.29
Health Problem	1 0.23	1 1.03	4 1.48	2 1.28	8 0.83
Unemployed	4 0.92	4 4.12	10 3.70	5 3.21	23 2.40
TOTAL	436	97	270	156	959
Chi-Square	45.46 326.02**	10.11	28.15	16.27	100.00

**=P<.01

Note: this is biased by so-so sample

Table 14.2
 Current Status by Curriculum Type: Class of 1984
 Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Working Full Time	10 71.43	6 50.00	13 68.42	12 75.00	41 67.21
Working Part Time	0 0.00	3 25.00	1 5.26	1 6.25	5 8.20
Full-time Student	1 7.14	1 8.33	0 0.00	1 6.25	3 4.92
Student with Part-Time Job	2 14.29	2 16.67	0 0.00	0 0.00	4 6.56
In the Military	1 7.14	0 0.00	1 5.26	1 6.25	3 4.92
Homemaker	0 0.00	0 0.00	2 10.53	1 6.25	3 4.92
Unemployed	0 0.00	0 0.00	2 10.53	0 0.00	2 3.28
TOTAL	14 22.95	12 19.67	19 31.15	16 26.23	61 100.00
Chi-Square	20.89				

Note: Difference is not statistically significant.

Table 14.3
 Current Status by Curriculum Type: Class of 1985
 Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Working Full Time	5 11.11	6 42.86	19 61.29	8 57.14	38 36.54
Working Part Time	3 6.67	1 7.14	4 12.90	2 14.29	10 9.62
Full-time Student	17 37.78	3 21.43	4 12.90	1 7.14	25 24.04
Student with Part-Time Job	20 44.44	3 21.43	2 6.45	1 7.14	26 25.00
In the Army	0 0.00	0 0.00	1 3.23	1 7.14	2 1.92
Homemaker	0 0.00	1 7.14	1 3.23	1 7.14	3 2.88
TOTAL	45 43.27	14 13.46	31 29.81	14 13.46	104 100.00
Chi-Square	42.32***				

***=P<.01

Table 14.4
 Current Status by Curriculum Type: Class of 1986
 Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Working Full Time	6 11.11	12 46.15	26 57.78	10 62.50	54 38.30
Working Part Time	2 3.70	1 3.85	3 6.67	0 0.00	6 4.26
Full-time Student	16 29.63	3 11.54	3 6.67	1 6.25	23 16.31
Student with Part-Time Job	25 46.30	5 19.23	2 4.44	2 12.50	34 24.11
In the Army	3 5.56	1 3.85	7 15.56	0 0.00	11 7.80
Homemaker	1 1.85	2 7.69	2 4.44	2 12.50	7 4.96
Health Problem	0 0.00	1 3.85	1 2.22	0 0.00	2 1.42
Unemployed	1 1.85	1 3.85	1 2.22	1 6.25	4 2.84
TOTAL	54 38.30	26 18.44	45 31.91	16 11.35	141 100.00
Chi-Square	60.44***				

***=P<.01

Table 14.5
Current Status by Curriculum Type: Class of 1987
Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Working Full Time	12 10.08	9 37.50	38 53.52	21 50.00	80 31.25
Working Part Time	0 0.00	4 16.67	7 9.86	4 9.52	15 5.86
Full-time Student	46 38.66	4 16.67	3 4.23	3 7.14	56 21.88
Student with Part-Time Job	55 46.22	2 8.33	10 14.08	11 26.19	78 30.47
In the Army	5 4.20	3 12.50	7 9.86	1 2.38	16 6.25
Homemaker	0 0.00	1 4.17	0 0.00	1 2.38	2 0.78
Health Problem	0 0.00	0 0.00	1 1.41	0 0.00	1 0.39
Unemployed	1 0.84	1 4.17	5 7.04	1 2.38	8 3.13
TOTAL	119 46.48	24 9.38	71 27.73	42 16.41	256 100.00
Chi-Square	117.36***				

***=P<.01

Table 14.6
Current Status by Curriculum Type: Class of 1988
Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Working Full Time	11 5.39	9 42.86	35 33.65	25 36.76	80 20.15
Working Part Time	5 2.45	1 4.76	15 14.42	11 16.18	32 8.06
Full-time Student	90 44.12	2 9.52	22 21.15	8 11.76	122 30.73
Student with Part-Time Job	87 42.65	4 19.05	37 17 16.35	30 13 19.12	121 30.48
In the Army	7 3.43	1 4.76	9 8.65	4 5.88	21 5.29
Homemaker	1 0.49	2 9.52	2 1.92	2 2.94	7 1.76
Health Problem	1 0.49	0 0.00	2 1.92	2 2.94	5 1.26
Unemployed	2 0.98	2 9.52	2 1.92	3 4.41	9 2.27
TOTAL	204 51.39	21 5.29	104 26.20	68 17.13	397 100.00
Chi-Square	135.84***				

***=P<.01

Table 15
 Military Status by Curriculum Type:
 Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Never in the Military	408 93.58	90 92.78	237 87.78	147 94.23	882 91.97
In the Military	28 6.42	7 7.22	33 12.22	9 5.77	77 8.03
TOTAL	436 45.46	97 10.11	270 28.15	156 16.27	959 100.00
Chi-Square	9.12**				

**=P<.05

Table 16.1
 Higher Education Attendance by Curriculum Type
 Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Never Attended	23 5.62	44 48.89	136 57.38	83 56.46	286 32.39
Attended	386 94.38	46 51.11	101 42.62	64 43.54	597 67.61
TOTAL	409 46.32	90 10.19	237 26.84	147 16.65	883 100.00
Chi-Square	251.51**				

**=P<.01

Table 16.2
Higher Education Attendance by Curriculum Type by Graduation Year
Questionnaire Response Data: Chi-Square Test

50

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Never Attended	0 0.00	3 25.00	10 58.82	9 60.00	22 38.60
1984 Attended	13 100.00	9 75.00	7 41.18	6 40.00	35 61.40
TOTAL	13 22.81	12 21.05	17 29.82	15 26.32	57 100.00
Chi-Square	14.94***				
Never Attended	1 2.44	5 38.46	17 60.71	9 69.23	32 33.68
1985 Attended	40 97.56	8 61.54	11 39.29	4 30.77	63 66.32
TOTAL	41 43.16	13 13.68	28 29.47	13 13.68	95 100.00
Chi-Square	34.56***				
Never Attended	3 6.00	13 54.17	21 55.26	6 42.86	43 34.13
1986 Attended	47 94.00	11 45.83	17 44.74	8 57.14	83 65.87
TOTAL	50 39.68	24 19.05	38 30.16	14 11.11	126 100.00
Chi-Square	29.91***				
Never Attended	6 5.31	9 42.86	36 60.00	20 48.78	71 30.21
1987 Attended	107 94.69	12 57.14	24 40.00	21 51.22	164 69.79
TOTAL	113 48.09	21 8.94	60 25.53	41 17.45	235 100.00
Chi-Square	66.78***				
Never Attended	13 6.77	14 70.00	52 55.32	39 60.94	118 31.89
1988 Attended	179 93.23	6 30.00	42 44.68	25 39.06	252 68.11
TOTAL	192 51.89	20 5.41	94 25.41	64 17.30	370 100.00
Chi-Square	117.76***				



Table 17
Type of Post-Secondary Institution Attended by Curriculum Type:
Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Vocational Technical School	6 1.55	3 6.52	14 13.86	3 4.69	26 4.36
Private Business, Technical School	19 4.92	9 19.57	23 22.77	24 37.50	75 12.56
Community College	12 3.11	6 13.04	20 19.80	5 7.81	43 7.20
University Branch Campus	24 6.22	7 15.22	12 11.88	8 12.50	51 8.54
4-Year College	321 83.16	19 41.30	22 21.78	15 23.44	377 63.15
er	4 1.04	2 4.35	10 9.90	9 14.06	25 4.19
TOTAL	386	46	101	64	597
Chi-Square	64.66 232.24***	7.71	16.92	10.72	100.00

***=P<.01

Table 18
Attending Higher Education Out of State by Curriculum Type:
Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
In State	362 93.78	43 93.48	89 89.00	55 85.94	549 92.11
Out of PA	24 6.22	3 6.52	11 11.00	9 14.06	47 7.89
TOTAL	386 64.77	46 7.72	100 16.78	64 10.74	596 100.00
Chi-Square	6.29				

Note: Difference is not statistically significant

Table 19
Current Status of Higher Education Presence by Curriculum Type:
Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Completed	17 4.40	11 23.91	24 23.76	19 30.16	71 11.91
Enrolled Full Time	339 87.82	24 52.17	60 59.41	38 60.32	461 77.35
Enrolled Part Time	15 3.89	4 8.70	7 6.93	4 6.35	30 5.03
No Longer Attending	15 3.89	7 15.22	10 9.90	2 3.17	34 5.70
TOTAL	386 64.77	46 7.72	101 16.95	63 10.57	596 100.00
Chi-Square	85.69***				

***=P<.01

Table 20.1
Weekly Earnings by Curriculum Type:
First Job, Full-Time Employment: Analysis of Variance

SOURCE	DF	SUM OF SQ	MEAN SQ	F VALUE
MODEL	3	31368.152	10456.051	0.78
ERROR	250	3350212.254	13400.849	
CORRECTED TOTAL	253	3381580.406		

High School Curriculum	Total		Male		Female	
	N	MEANS	N	MEANS	N	MEANS
Academic	37	\$185.70	17	\$243.39	20	\$136.67
General	40	\$168.04	15	\$228.41	25	\$131.81
AVTS	111	\$183.24	63	\$192.58	48	\$170.98
HS VOC	66	\$158.64	15	\$227.69	51	\$138.33
F Value		0.78		0.84		1.75

High School Curriculum	Graduation Year									
	n	1984	n	1985	n	1986	n	1987	n	1988
Academic	7	128.62	5	237.94	6	228.19	10	159.76	9	201.59
General	5	149.43	6	190.09	11	166.00	9	154.21	9	180.00
AVTS	10	254.10	17	185.66	23	176.86	31	176.32	30	170.30
HS VOC	6	188.12	5	182.94	9	138.48	21	146.46	25	164.20
F VALUE		0.99		0.17		0.75		0.59		0.26

Note: Differences are not statistically significant

Table 20.2
Weekly Earnings by Curriculum Type:
Present Job, Full-Time Employment: Analysis of Variance

SOURCE	DF	SUM OF SQ	MEAN SQ	F VALUE
MODEL	3	130644.970	43548.323	2.95**
ERROR	254	3750119.240	14764.248	
CORRECTED TOTAL	257	3880764.211		

	Total		Male		Female	
High School Curriculum	N	MEANS	N	MEANS	N	MEANS
Academic	39	\$269.20	17	\$354.08	22	\$203.61
General	40	\$262.09	15	\$315.29	25	\$230.16
AVTS	113	\$246.70	65	\$265.19	48	\$221.66
HS VOC	66	\$206.50	15	\$260.87	51	\$190.51
F Value		2.95**		2.18		1.43

	Graduation Year									
High School Curriculum	n	1984	n	1985	n	1986	n	1987	n	1988
Academic	8	393.94	5	342.81	6	257.67	10	193.02	10	215.70
General	5	378.74	6	251.88	11	237.58	9	264.59	9	231.52
AVTS	10	393.51	17	239.71	23	261.21	31	230.97	32	209.36
HS VOC	7	238.21	5	238.71	9	195.84	20	201.51	25	199.02
F VALUE		1.31		1.56		0.68		1.34		0.22

**=P<.05

Table 20.3
Regression of the First Job's Weekly Earning for
Full-Time Working Response Data

Variable	DF	Parameter Estimate	Standard Deviation	T-Value
INTERCEP	1	255.126	72.668	3.511
Male	1	59.454	14.774	4.024***
Firm Size:				
FIRM2	1	-19.821	16.631	-1.192
FIRM3	1	3.437	18.958	0.181
FIRM4	1	9.834	33.662	0.292
Training:				
No Training	1	-29.405	41.760	-0.704
Supervisor	1	9.829	18.422	0.534
Co-Worker	1	-27.555	19.194	-1.436
PEDUC	1	-2.163	2.716	-0.796
Rural	1	-34.322	20.083	-1.709*
Curriculum:				
General	1	-22.708	25.284	-0.898
AVTS	1	-19.000	21.576	-0.881
HS VOC	1	-11.407	23.378	-0.488
Sample N		.252		
F Value		2.535***		
R-Square		0.113		

*=P<.10, **=P<.05, ***=P<.01

Note: FIRM2-FIRM4 are firm size of 2 to 4, using firm size 1 as the reference group. Training variable uses formal training group as the reference group. PEDUC is parent's education, a continuous variable. Curriculum type variable employs academic education as the reference group.

Table 20.4
Regression of the Current Job's Weekly Earning for
Full-Time Working Response Data

Variable	DF	Parameter Estimate	Standard Deviation	T-Value
INTERCEP	1	152.628	74.895	2.038
Male	1	70.473	15.428	4.568***
Marital:				
Married	1	31.021	19.991	1.552
Separated	1	-22.179	67.278	-0.330
Firm Size:				
FIRM2	1	-25.886	17.479	-1.481
FIRM3	1	-9.773	18.876	-0.518
FIRM4	1	17.004	27.910	0.609
Training:				
No Training	1	-29.405	41.760	0.436
Supervisor	1	-37.910	17.658	-2.147**
Co-worker	1	-39.475	18.998	-2.078**
PEDUC	1	5.121	2.869	1.785*
Rural	1	-26.660	20.242	-1.317
High Education:				
Completer	1	65.654	19.797	3.316***
Part-time	1	1.601	42.649	0.038
Drop out	1	-5.881	27.612	-0.213
Curriculum:				
General	1	-7.198	25.884	-0.278
AVTS	1	-25.201	22.925	-1.099
HS VOC	1	-44.246	25.189	-1.757*
Sample N		.256		
F Value		4.282***		
R-Square		0.234		

*=P<.10, **=PM.05, ***=P<.01

Note: Marital status variable employs "single" as the reference group. FIRM2-FIRM4 are firm size of 2 to 4, using firm size 1 as the reference group. Training variable uses formal training group as the reference group. PEDUC is parent's education, a continuous variable. Higher education status variable uses the group of those who has never attended post-secondary school as the reference group. Curriculum type variable employs academic education as the reference group.

Table 21
 Unemployment Rates by Curriculum Type:
 Questionnaire Response Data: Frequency Distribution

Variable	ACADEMIC	GENERAL	AVTS	HS VOC
Working Full Time	44	42	131	76
Working Part Time	10	10	30	18
Unemployed	4	4	10	5
In the Labor Force	58	56	171	99
Unemployment Rate	6.9%	7.1%	5.8%	5.1%

Table 22.1
 Job Satisfaction by Curriculum Type:
 First Job, Full-Time Employment Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Dissatisfied	19 45.24	12 28.57	43 34.68	25 33.33	99 34.98
Satisfied	23 54.76	30 71.43	81 65.32	50 66.67	184 65.02
TOTAL	42 14.84	42 14.84	124 43.82	75 26.50	283 100.00
Chi-Square	2.80				

Note: Difference is not statistically significant

Table 22.2
 Job Satisfaction by Curriculum Type:
 Present Job, Full-Time Employment Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Dissatisfied	10 23.81	1 2.38	21 16.94	13 17.33	45 15.90
Satisfied	32 76.19	41 97.62	103 83.06	62 82.67	238 84.10
TOTAL	42 14.84	42 14.84	124 43.82	75 26.50	283 100.00
Chi-Square	7.92**				

**=P<.05

Table 23.1
Employer-Provided Training by Curriculum Type:
First Job, Full-Time Employment Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Formal Training	18 42.86	9 21.43	28 22.95	17 22.67	72 25.62
Supervisor Training	15 35.71	20 47.62	46 37.70	27 36.00	108 38.43
Co-worker Training	8 19.05	12 28.57	43 35.25	28 37.33	91 32.38
No Training	1 2.38	1 2.38	5 4.10	3 4.00	10 3.56
TOTAL	42 14.84	42 14.84	122 43.42	75 26.69	281 100.00
Chi-Square	10.73				

Note: Difference is not statistically significant

Table 23.2
Employer-Provided Training by Curriculum Type:
Present Job, Full-Time Employment Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Formal Training	17 40.48	15 35.71	36 29.27	20 27.03	88 31.32
Supervisor Training	17 40.48	16 38.10	41 33.33	28 37.84	102 36.30
Co-worker Training	7 16.67	10 23.81	38 30.89	23 31.08	78 27.76
No Training	1 2.38	1 2.38	8 6.50	3 4.05	13 4.63
TOTAL	42 14.95	42 14.95	123 43.77	74 26.33	281 100.00
Chi-Square	7.30				

Note: Difference is not statistically significant

Table 23.3
Satisfaction with Employer-Provided Training by Curriculum Type:
First Job, Full-Time Employment Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Dissatisfied	10 23.81	7 16.67	31 25.00	13 17.33	61 21.55
Satisfied	32 76.19	35 83.33	93 75.00	62 82.67	222 78.45
TOTAL	42 14.84	42 14.84	124 43.82	75 26.50	283 100.00
Chi-Square	2.38				

Note: Difference is not statistically significant

Table 23.4
Satisfaction with Employer-Provided Training by Curriculum Type:
Present Job, Full-Time Employment Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Dissatisfied	9 21.43	29 11.90	29 23.39	15 20.00	58 20.49
Satisfied	33 78.57	37 88.10	95 76.61	60 80.00	225 79.51
TOTAL	42 14.84	42 14.84	124 43.82	75 26.50	283 100.00
Chi-Square	2.57				

Note: Difference is not statistically significant

Table 24.1
Firm Size of Employer by Curriculum Type:
First Job, Full-Time Employment Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
1-19	15 35.71	18 42.86	62 50.41	30 40.00	125 44.33
20-99	17 40.48	12 28.57	30 24.39	24 32.00	83 29.43
100-499	8 19.05	10 23.81	24 19.51	16 21.33	58 20.57
500 or More	2 4.76	2 4.76	7 5.69	5 6.67	16 5.67
TOTAL	42 14.89	42 14.89	123 43.62	75 26.60	282 100.00
Chi-Square	5.65				

Note: Difference is not statistically significant

Table 24.2
Firm Size of Employer by Curriculum Type:
Present Job, Full-Time Employment Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
1-19	14 33.33	13 30.95	54 43.55	26 35.14	107 37.94
20-99	14 33.33	11 26.19	34 27.42	21 28.38	80 28.37
100-499	10 23.81	16 38.10	26 20.97	18 24.32	70 24.82
500 or More	4 9.52	2 4.76	10 8.06	9 12.16	25 8.87
TOTAL	42 14.89	42 14.89	124 43.97	74 26.24	282 100.00
Chi-Square	7.99				

Note: Difference is not statistically significant

Table 24.3
 First Job's Firm Size by Employer-Provided Training Status:
 Full-Time Working Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	1-19	20-99	100-499	500+	TOTAL
Formal Training	20 16.00	20 23.81	25 43.10	8 53.33	73 25.89
Supervisor Training	53 42.40	34 40.48	17 29.31	4 26.67	108 38.30
Co-worker Training	46 36.80	28 33.33	14 24.14	3 20.00	91 32.27
No Training	6 4.80	2 2.38	1 3.45	0 0.00	10 3.55
TOTAL	125 44.33	84 29.79	58 20.57	15 5.32	282 100.00
Chi-Square	22.40***				

***=P<.01

Table 24.4
 Present Job's Firm Size by Employer-Provided Training Status:
 Full-Time Working Questionnaire Response Data: Chi-Square Test

FREQUENCY PERCENT	1-19	20-99	100-499	500+	TOTAL
Formal Training	26 24.30	22 27.50	34 48.57	7 28.00	89 31.65
Supervisor Training	37 34.58	34 42.50	21 30.00	10 40.00	102 36.17
Co-worker Training	37 34.58	20 25.00	15 21.43	6 24.00	78 27.66
No Training	7 6.54	4 5.00	0 0.00	2 8.00	13 4.61
TOTAL	107 37.94	80 28.37	70 24.82	25 8.87	282 100.00
Chi-Square	18.43**				

**=P<.05

Table 25.1
 Job-Finding Techniques by Curriculum Type:
 First Job, Full-Time Employment Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Co-op	0 0.00	1 2.38	30 24.39	17 22.67	48 17.08
Counselor Guidance	0 0.00	1 2.38	2 1.63	0 0.00	3 1.07
HS teacher Referral	0 0.00	0 0.00	9 7.32	2 2.67	11 3.91
Family or Friend	19 46.34	15 35.71	36 29.27	26 34.67	96 34.16
Newspaper Ad	0 0.00	6 14.29	9 7.32	3 4.00	18 6.41
State Employ- ment Office	1 2.44	2 4.76	1 0.81	2 2.67	6 2.14
JTPA	0 0.00	0 0.00	7 5.69	1 1.33	8 2.85
College Place- ment Office	3 7.32	0 0.00	2 1.63	1 1.33	6 2.14
Self Referral	14 34.15	17 40.48	21 17.07	21 28.00	73 25.98
Other	4 9.76	0 0.00	6 4.88	2 2.67	12 4.27
TOTAL	41 14.59	42 14.95	123 43.77	75 26.69	281 100.00
Chi-Square	66.14***				

***=P<.01

Table 25.2
 Job-Finding Techniques by Curriculum Type:
 Present Job, Full-Time Employment Data: Chi-Square Test

FREQUENCY PERCENT	ACADEMIC	GENERAL	AVTS	HS VOC	TOTAL
Co-op	0 0.00	1 2.38	18 14.52	11 14.86	30 10.64
Counselor Guidance	0 0.00	0 0.00	2 1.61	0 0.00	2 0.71
HS Teacher Referral	0 0.00	0 0.00	7 5.65	3 4.05	10 3.55
Family or Friend	18 42.86	19 45.24	40 32.26	24 32.43	101 35.82
Newspaper Ad	7 16.67	4 9.52	12 9.68	8 10.81	31 10.99
State Employment Office	3 7.14	2 4.76	6 4.84	3 4.05	14 4.96
JTPA	0 0.00	0 0.00	3 2.42	1 1.35	4 1.42
College Placement Office	4 9.52	0 0.00	3 2.42	1 1.35	8 2.84
Self Referral	10 23.81	13 30.95	25 20.16	20 27.03	68 24.11
Other	0 0.00	3 7.14	8 6.45	3 4.05	14 4.96
TOTAL	42 14.89	42 14.89	124 43.97	74 26.24	282 100.00
Chi-Square	37.19				

Note: Difference is not statistically significant